

Glove Data Overview (how Viewer States Relate to the Data)

10

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Viewer State

	Entity states	Data states	Presentation states
Default	(es1, es2, es3, es4, es5, es6)	(ds1)	(ps1)
Food Prep	(es2)	(ds2, ds1)	(ps2, ps1)
Food Prep German	(es2)	(ds7, ds6, ds2, ds1)	(ps7, ps6, ps2, ps1)
Industrial	(es4, es5)	(ds4, ds1)	(ps4, ps1)
Etc.			

Multiple ranked entity states

Cascading data states

Cascading presentation states

Entity States

es1 Default
es2 FoodPrep
es3 HealthCare
es4 Industrial
es5 Work
es6 Office
Etc.

Data States

ds1 Default
ds2 FoodPrep
ds3 HealthCare
ds4 Industrial
ds5 Wholesale
ds6 DefaultGerman
ds7 FoodPrepGerman
ds8 HealthCareGerman
ds9 IndustrialGerman
ds10 WholesaleGerman
Etc.

Presentation States

ps1 Default
ps2 FoodPrep
ps3 HealthCare
ps4 Industrial
ps5 Wholesale
ps6 DefaultGerman
ps7 FoodPrepGerman
ps8 HealthCareGerman
ps9 IndustrialGerman
ps10 WholesaleGerman
Etc.

Many entity states per entity

One data state per element of data

One presentation state per template

Entities

entity state(s) entity class
e1 Vinyl glove (es1-es5) (ec1)
e2 Latex glove (es1-es5) (ec1)
e3 Work glove (es1-es5) (ec1)
e4 Kevlar glove (es1-es5) (ec1)
e5 Nitrile glove (es1,es4) (ec1)
e6 Nitrile boot (es1,es4) (ec2)
e7 Kevlar chap (es4,es5) (ec3)
Etc.

Entity Data

	entity	data type	data state
Vinyl glove name	(e1)	(dt1)	(ds1)
Vinyl glove name	(e1)	(dt1)	(ds2)
Vinyl glove name	(e1)	(dt1)	(ds3)
Vinyl glove name	(e1)	(dt1)	(ds4)
Vinyl glove name	(e1)	(dt1)	(ds6)
Vinyl glove description	(e1)	(dt2)	(ds1)
Vinyl glove description	(e1)	(dt2)	(ds2)
Vinyl glove description	(e1)	(dt2)	(ds3)
Vinyl glove description	(e1)	(dt2)	(ds6)
Vinyl glove price	(e1)	(dt3)	(ds1)
Vinyl glove wholesale	(e1)	(dt4)	(ds5)
Latex glove name	(e2)	(dt1)	(ds1)
Etc.			

Presentation Templates

	entity class	pres. state
Glove default	(ec1)	(ps1)
Glove foodPrep	(ec1)	(ps2)
Glove healthCare	(ec1)	(ps3)
Glove industrial	(ec1)	(ps4)
Glove wholesale	(ec1)	(ps5)
Glove default Gmn	(ec1)	(ps6)
Glove food Gmn	(ec1)	(ps7)
Glove health Gmn	(ec1)	(ps8)
Glove ind Gmn	(ec1)	(ps9)
Boot default	(ec2)	(ps2)
Etc.		

One entity class per entity

One data type per element of data

One entity class per template

Entity Classes

ec1 Glove
ec2 Boot
ec3 Chap
Etc.

Data Types

dt1 name
dt2 description
dt3 price
dt4 wholesale price
Etc.

Figure 1

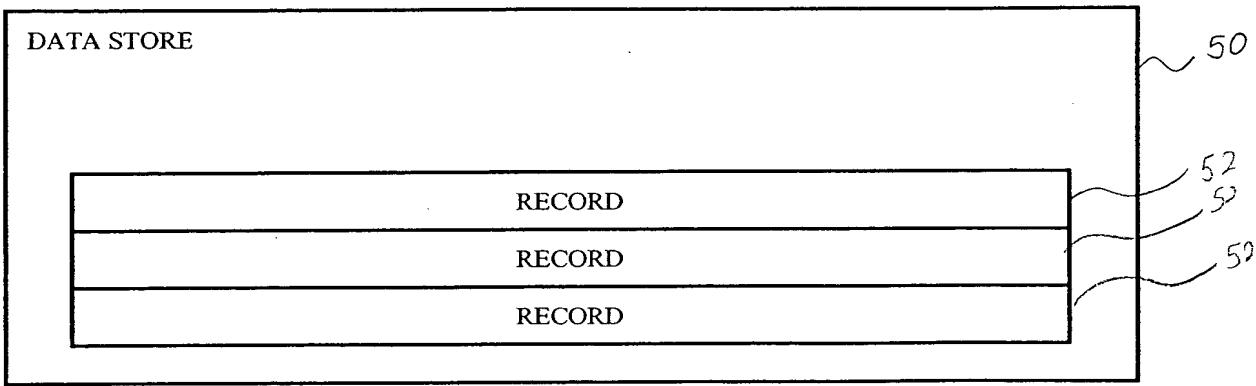


Figure 2

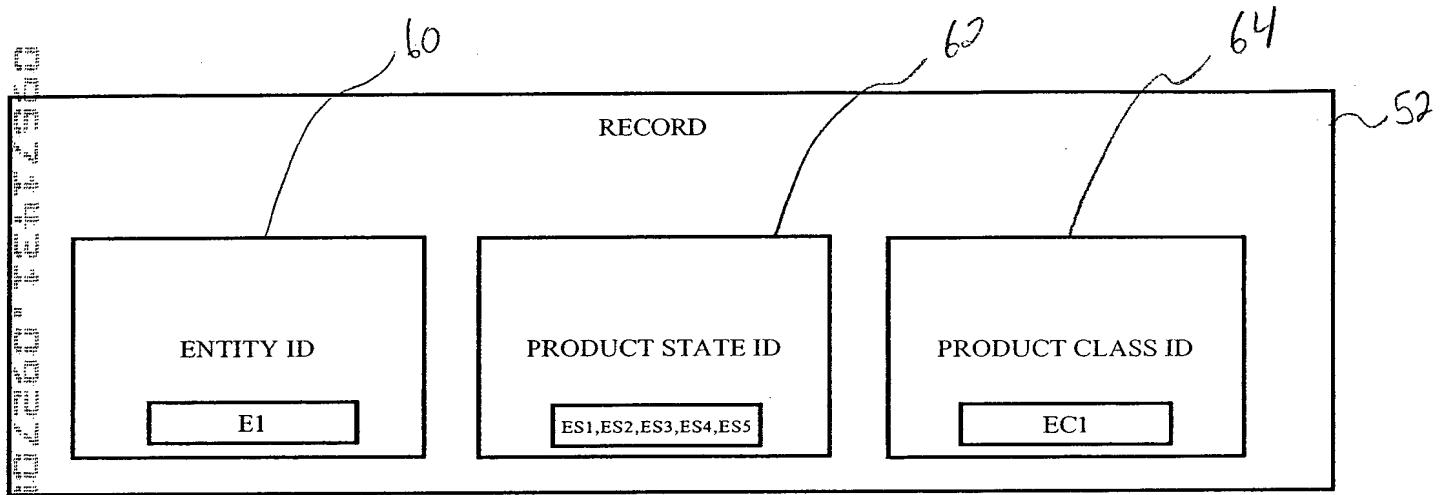


Figure 3

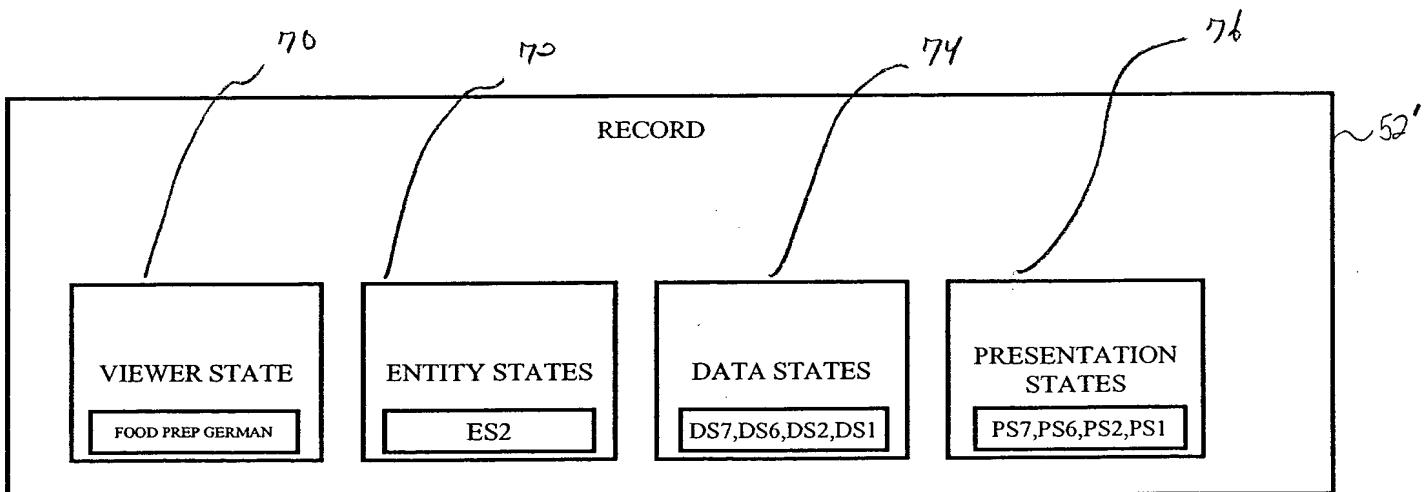
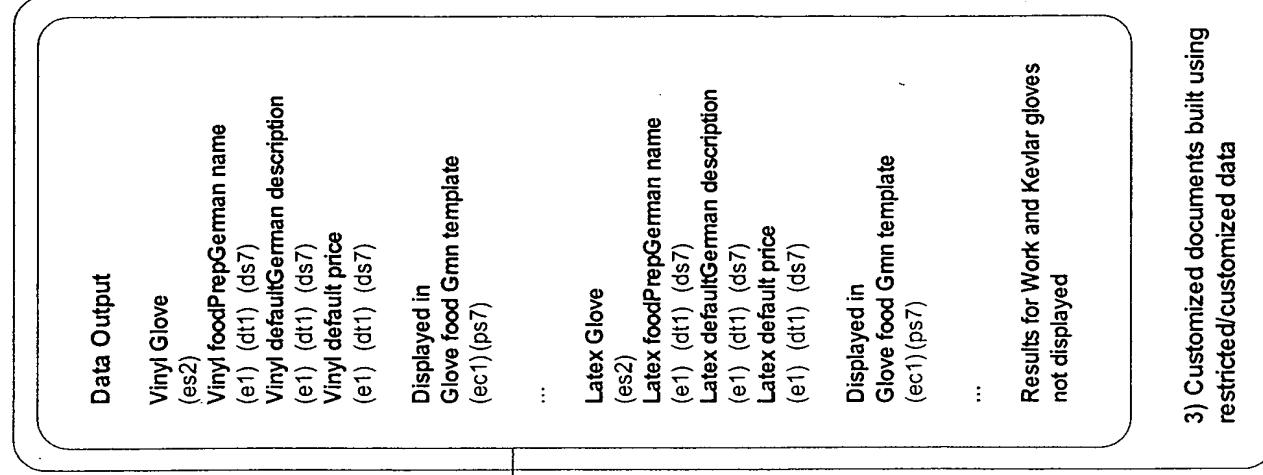
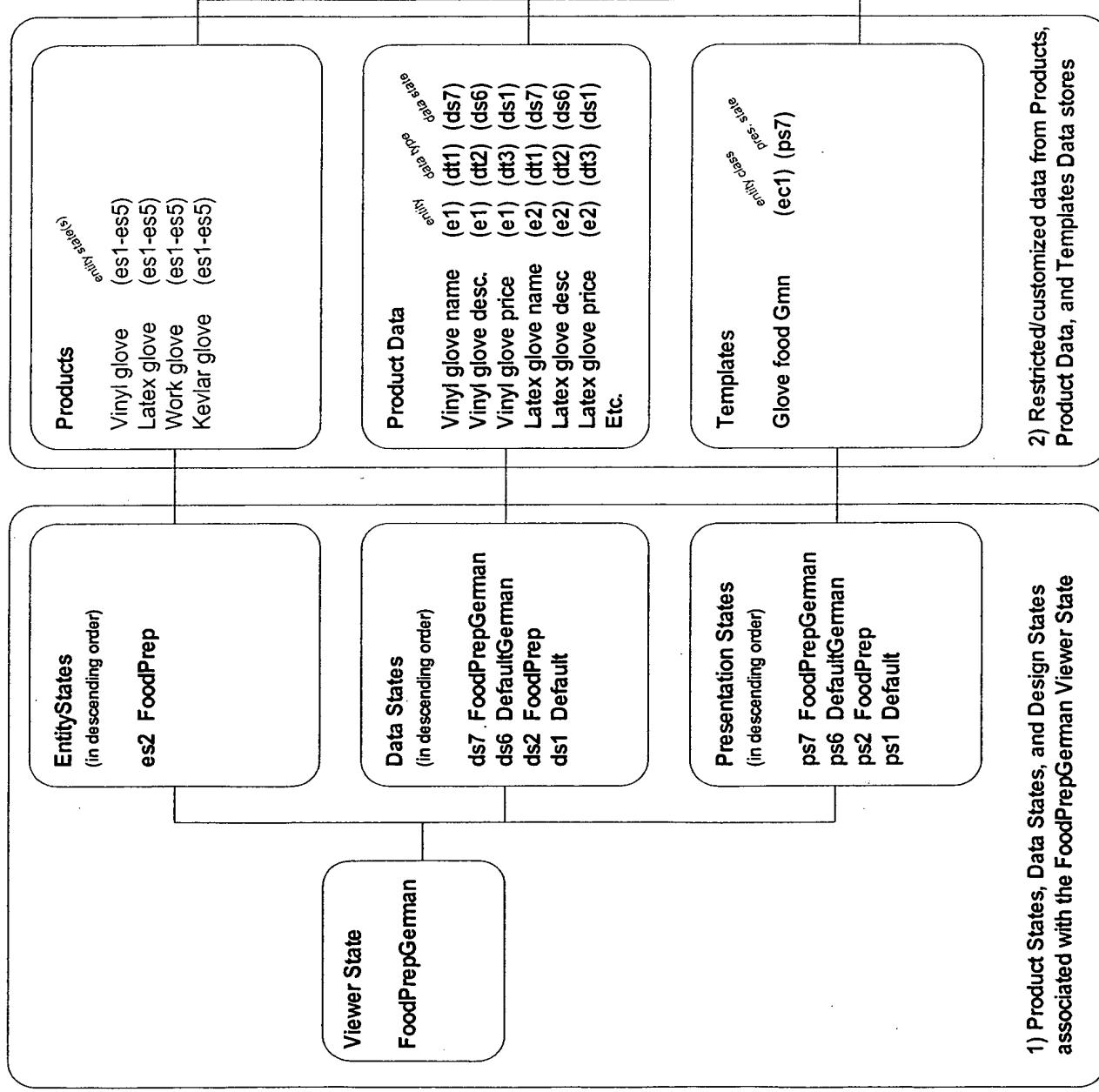


Figure 4

Glove Data Example (how information is created for the FoodPrepGerman Viewer State)



1) Product States, Data States, and Design States associated with the FoodPrepGerman Viewer State

2) Restricted/customized data from Products, Product Data, and Templates Data stores

3) Customized documents built using restricted/customized data

Figure 5



[/name] [/end]

[/description] [/end]

**[/caption]
[/end]**

Prod.#

**[/productNumber]
[/end]**

Color

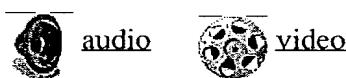
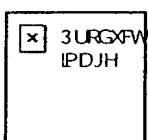
[/color] [/end]

Price

[/price] [/end]

Size: [/size] [/end]

[/note] [/end] ([/productNumber] {/end})



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Figure 6

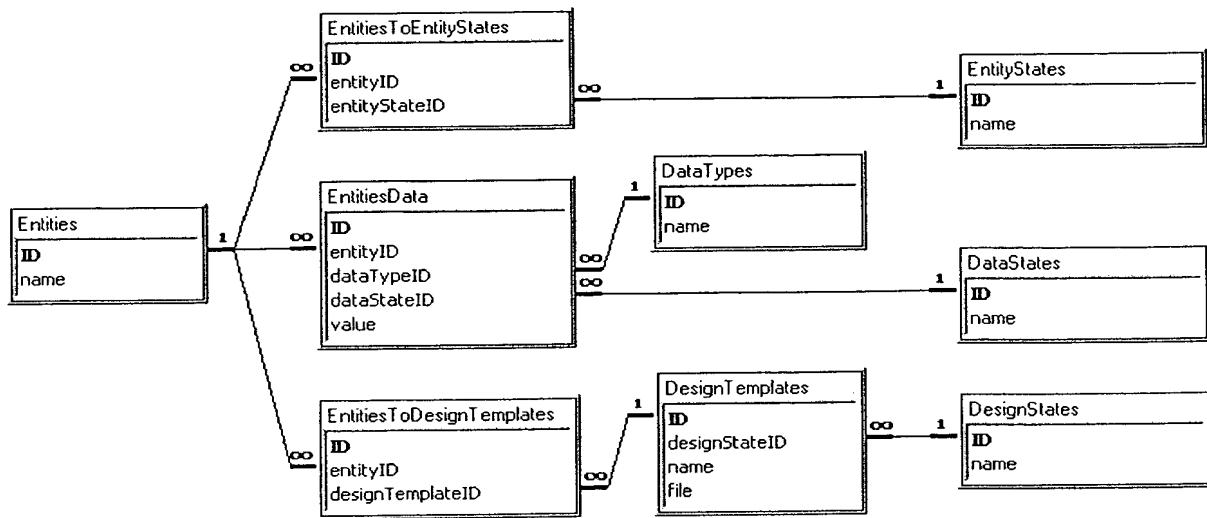


Figure 7
Relationships between System data stores when implemented using an SQL database

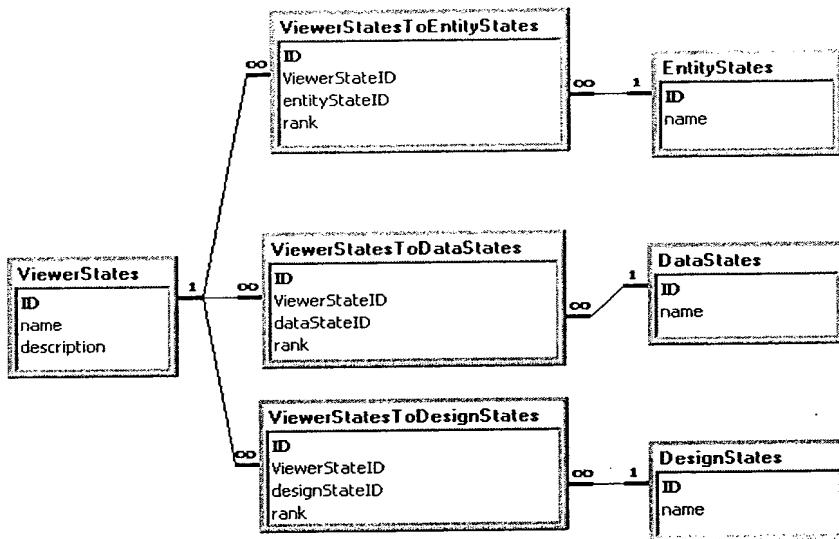


Figure 8
Relationships between User data stores when implemented using an SQL database

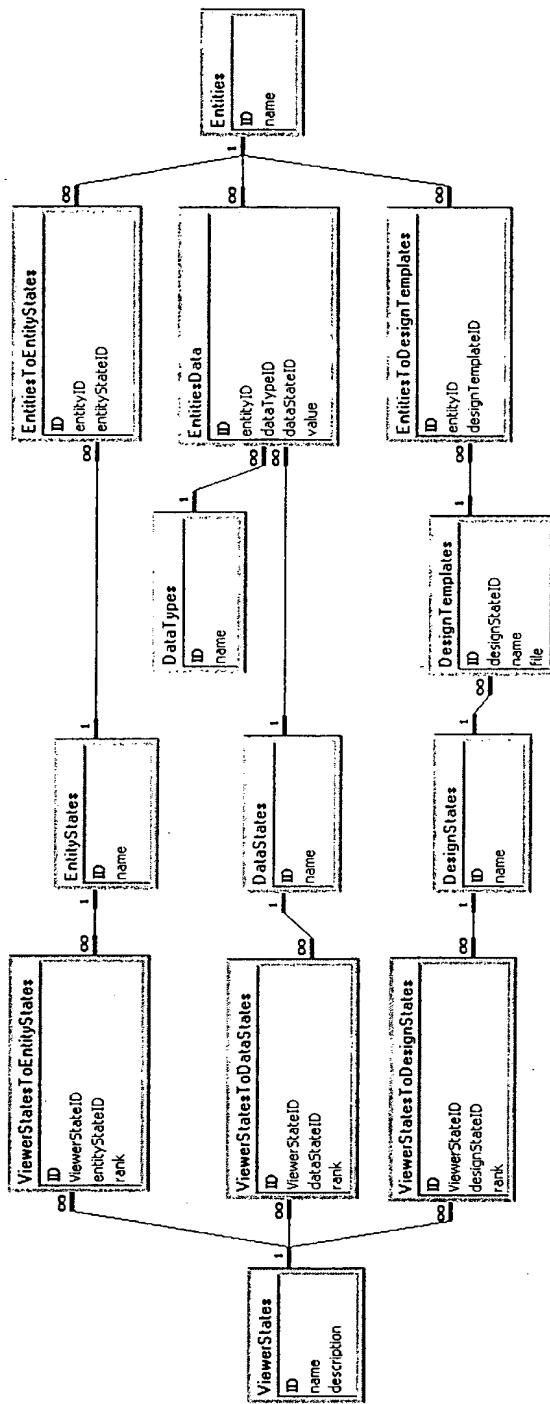
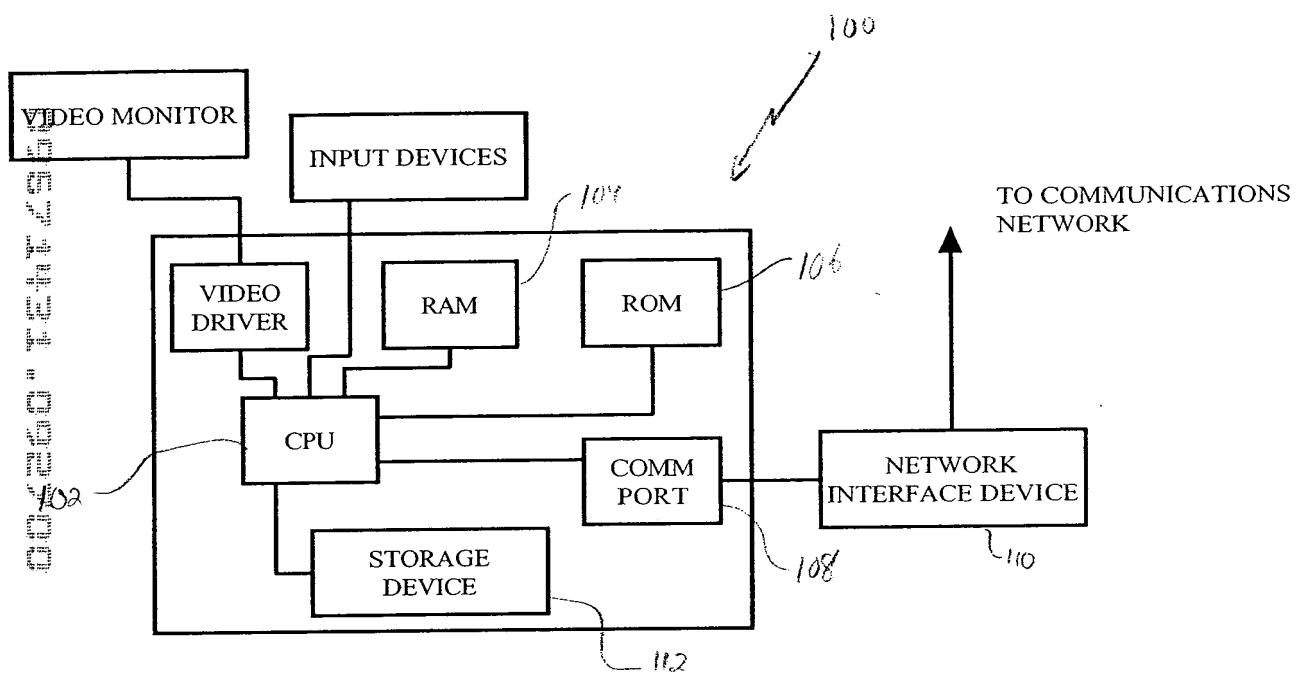


Figure 9

Relationships between all primary data stores when implemented using an SQL database



Data Display Steps

(how the system creates a document describing a specific entity)

1) Viewer State Creation

Viewer state is created, assigning to the state:

- 1) Ranked entity states
- 2) Cascading data states
- 3) Cascading presentation states

Viewer state is either created ahead of time by system administrator, or dynamically by logic external to the system.

2) Viewer State Selection

Viewer state is assigned to current viewer using logic external to the system, thereby linking viewer to the collection of entity states, data states, and presentation states associated with the viewer state.

Viewer state can be known ahead of time, such as with a known customer, can be chosen by the viewer during the viewing process, our could be determined given viewer demographics purchase histories, etc.

3) Viewer Document Request

Viewer requests a document on a specific entity from a list of entity documents created during the data search portion of system operation.

See the related "Data Search Steps" flow chart for more information on how data searches are performed.

4) Base Conditions Creation

System examines the viewer's viewer state and creates a means of extracting all related data from Entities and EntitiesData data stores.

The product of this step is a subset of data from the data stores where:

- 1) Elements of data related to the specified entity are selected from the EntitiesData data store related to each entity. The most appropriate data element for each dataType for each Entity will be selected according to the cascading data states associated with the viewerState.

The result is a data set, or a query that defines a data set, where the most appropriate data describing the entity has been found.

5) Template Selection

An output template is selected from the PresentationTemplates data store according to the cascading PresentationStates associated with the ViewerState.

6) Document Creation

A document is created from the selected PresentationTemplate.

The system searches through the template locating tags that specify which DataTypes will be displayed. When a tag is found, the system examines the result set from the Base Conditions Creation step, and if data is found for that data type, inserts the data into the document.

The process continues until all tags have been examined.

7) Display Document

The output document created in the previous step is displayed to the viewer.

Figure 11

Data Search Steps (how the system returns a list of entities in response to a viewer query)

1) Viewer State Creation

Viewer state is created, assigning to the state:

- 1) Ranked entity states
- 2) Cascading data states
- 3) Cascading presentation states

Viewer state is either created ahead of time by system administrator, or dynamically by logic external to the system.

2) Viewer State Selection

Viewer state is assigned to current viewer using logic external to the system, thereby linking viewer to the collection of entity states, data states, and presentation states associated with the viewer state.

Viewer state can be known ahead of time, such as with a known customer, can be chosen by the viewer during the viewing process, our could be determined given viewer demographics purchase histories, etc.

3) Viewer Information Request

Viewer requests a list of one or more entities from the system.

This request could either be for all entities of interest to the viewer (as determined by the viewer states), or be for a subset of entities as determined by search parameters, e.g., gloves available in the color red.

4) Base Conditions Creation

System examines the viewer's viewer state and creates a means of extracting all related data from Entities and EntitiesData data stores.

The product of this step is a subset of data from the data stores where:

- 1) Entities are restricted to the entities related to the entityStates associated with the viewerState.
- 2) Entities are ranked according to the order of the entityStates associated with the viewerState.
- 3) Elements of data related to each entity are selected from the EntitiesData data store related to each entity. The most appropriate data element for each data Type for each Entity will be selected according to the cascading data states associated with the viewerState.

The result is a data set, or a query that defines a data set, where entities and data describing entities has been ranked and/or restricted according to conditions set up in the viewerState.

5) Search

If the user does not specify any search criteria, this step is skipped.

If the user does specify search criteria, these criteria are then applied to the base conditions result set generated in the previous step. Searches are therefore not performed against raw data, but are performed against result sets that have already been customized to the viewer state.

When working with a SQL database, the base conditions result set may exist as a query instead of a true result set. Searches will then be performed against the query.

When working with other data storage mechanisms, true result set generation may be required in the previous step.

Figure 12



*Great all-
purpose
disposable
glove*

General vinyl food gloves

Great for most general purpose sanitary food handling work, these gloves are constructed from a sturdy 4 mil vinyl. Ideal for any situation that demands a fast-on fast-off disposable glove.

Prod.#
112003

Color
natural

Price
\$7.60

Size: Large

Reversible ambidextrous gloves fit either right or left hands
(112003)



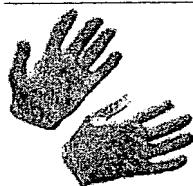
audio



video

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Figure 13



**Sehr guter
universeller
Einweghandschuh**

Universell eincusetzender Vinyl Handschuh

Dieser zweiteilige, beidseitig zu tragender, gemusterte fuselfreie Handshuh ist 9" lang. Strapazierfaehiger als Baumwolle, laeuft beim Waschen nicht ein. Mehrfacher Gebrauch. Handschuh wird meist in der Pharma- und Electro Industrie eingesetzt.

Art.-Nr.
112003

Farbe
natur

Preis
€7.79
Groesse: Large

Strapazierfaehiger als Baumwolle, laeuft beim Waschen nicht ein. Mehrfacher Gebrauch (112003)



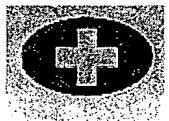
audio



video

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Figure 14



Vinyl barrier gloves

Great all-purpose disposable glove

Useful for biohazard protection where tactile response is not essential, these gloves are constructed from a sturdy 4 mil vinyl. Ideal for any situation that demands a fast-on fast-off disposable glove.



Prod.#	Color	Price
112003	natural	\$8.40

Size: Large

Reversible ambidextrous gloves fit either right or left hands (112003)



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Figure 15